

Artists Using Science and Technology

Ylem (Eye-lum): The exploding mass out of which the universe emerged in the Big Bang

Ylem Newsletter
Vol. 14, No. 3 April 1994



Cyber Gardens, computer art by Wynne Ragland, (detail from 32" X 40" Iris Print)

The Solart Global Network

by Theo Ferguson

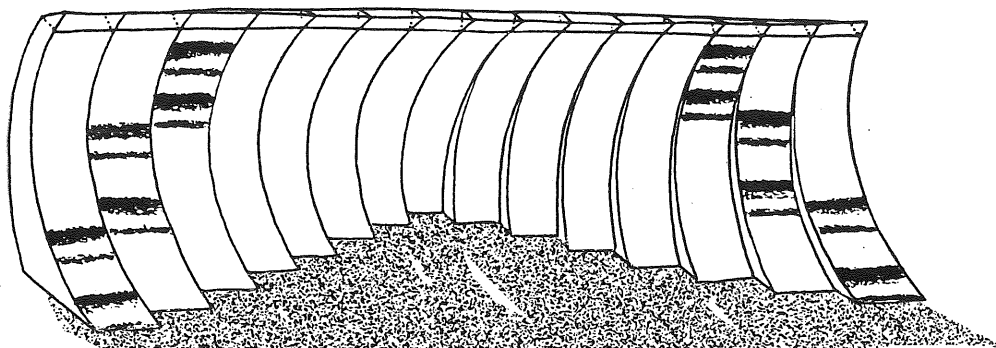
Cover Artist

Let your imagination expand...perceive the planet powered by solar and natural energy sources. Feel yourself integrated with all other living entities. Create amazing whimsical, functional, gorgeous art and life—your left hand creating and your right living consistently with the tenets of our Solar Age by participating in the Solart Global Network.

the Solar Age. Technology is used at the most advanced level but only to strengthen the underlying values of a critical and creative redefinition of art in the Biosphere.

The Solart Global Network challenges each of us to create using solar energy. Do we have enough to work with? Usable incident solar energy is about

Wynne Ragland, Jr. is a printmaker, photographer and artist whose compositions have surrealistic and futuristic overtones. He uses a broad range of computer animation programs and fully exploits special effects that artists today can achieve with the computer. His landscapes combine shapes of different sizes which he electronically pastes to texture maps and manipulates until his creations begin to form. Ragland states, "The model becomes the brush, and the texture maps create the palette. It's like working with clay." The colors of his palette are clear, bright and unlimited. The work on the cover is a detail of one of his Iris inkjet prints, *Cyber gardens*.



Spectral Wave, solar sculpture using prisms by Alex Nicoloff. Dark bars represent rainbow colors at noon, December 21.

The Solart Global Network is a group of visionaries and activists who create art by using the driver of our solar system—our sun. Nora and Juergen Claus of the Academy of Media Arts in Cologne, Germany are reaching out to creators and artists who use the sun in any aspect of their work. Many ponder why we have not moved more deeply into the Solar Age. Succinctly, it is not a matter of economics, nor a matter of technology, but a lack of cultural imagination.

The Claus' state that the aim of the Solart Global Network 1995 is to bring artists together in working with outdoor solar artworks. These might be outdoor holograms, light works depending on direct use of solar power, reflection of sunlight, etc. Highlights of this Solar Festival are positioned on different parts of the Planet in July and August 1995. Each artist works autonomously, sharing a common catalogue and a common film and video documentation of this event. Exhibitions are planned to show the resulting art works and their documentation.

By "Solart Global Network," I am talking about a value-oriented network. Network, for me, means a networking of people who share the same vision of

one kilowatt per square meter (kw/m^2) on every point of the planet's surface—that's enough to run your refrigerator and color TV constantly. It's also one-half of the energy budget of an average American home. You can imagine how much power this becomes in southern nations—for instance, with good atmospheric pressure differences and a nice land mass which creates a venturi—voila! that kw/m^2 of windswept area creates three times the power as the wind speed. Because 1995 is commencement of the 22-year solar cycle, our efforts will be well supported.

Let's make solar energy up front and personal to you. What if you emulated these people? Holger Qambusch, Head of Solar Energy World, Wuppertal, Germany, is politically inclined. He formed Eurosolar and is working with the UN to start an international solar energy agency. Prof. Dieter Jung, Academy of Media Arts, Cologne, Germany, produces artistic surfaces, namely using holographic film protected in a vacuum chamber with a mirror-coated backing which allows the pieces to be displayed indoors and out.

Setsuko Ishii is an innovative holographer whose 6' diameter hologram containing images of trees and leaves gives the impression of

looking upward into a forest. In California, Alex Nicoloff, among others, is exploring spectral light-painting-music video in which the composer and the solar painter co-compose the pieces. Consider! What delicious rainbows or whirling saucers to fly over oceans and field, recreation facilities powered by multicolored tree-shaped photovoltaics, or other solar manifestations can we conjure up? Any age, any tradition, any living being who can experience the sun can take up the challenge to participate in our conversion to a self-sustaining, solar age.

Spectral Wave, a major sculpture using prisms to translate solar light into many spectrums of radiant intensity, will be permanently installed at Lawrence Hall of Science, Berkeley, California, early the summer of 1994. Berkeley artist, Ylem and Solart Global Network member, Alex Nicoloff is planning the installation to coincide with the cohesion of the Solart Global Network in 1995. *Spectral Wave* is part of this international activity celebrating aesthetic aspects of solar power. It will be prominently displayed in an open environment in the Berkeley hills overlooking San Francisco Bay from the South lawn of Lawrence Hall of Science.

See page 3 for the Solart Global Network—Suns Alive! Forum on May 4th at the Exploratorium.

Ylem Forum: Solart Global Network—Suns Alive!

May 4, 7:30 pm

McBean Theatre, The Exploratorium,
3601 Lyon St., San Francisco
415-563-7337

Coordinated and Moderated by Theo
Ferguson

Presentation and Interaction by members
of the **Solart Global Network** and you!
Join in the creation of outdoor solar
artworks to bring the Solar Age to
fruition!

Alex Nicoloff, solar sculptor, will
present some current works including his
"Spectral Wave" which will be installed
at the Lawrence Hall of Science during
the season of the Solart Global Network
exhibitions and presentations in Summer
of 1995.

Roger Malina, editor of the journal,
Leonardo, will present an overview of
solar artworks and share his personal
experiences with other associates
involved in the Solart Global Network.

David Anderson will present his solar
saucer.

Keith Rutledge of the Renewable
Energy Development Institute will present
the Solar Energy Expo and Rally '94.

Come prepared to share your ideas,
seek resource people and become a
citizen of the Solar Age! The sponsors
are coalition of four non-profit
organizations:

**Ylem: Artists Using Science and
Technology**, an international
organization of artists based in the Bay
Area with 250 members formed in
1981.

**Leonardo/The International Society for
the Arts, Sciences and Technology**,
founded in Paris in 1968 and located in
the San Francisco Bay Area since
1981, whose scholarly journal,
Leonardo, is published by MIT Press.

**The Renewable Energy Development
Institute (REDI)**, a relatively young non-
profit based in Willits, California—but
through their REDI Invitational
Conferences, Solar Energy Expo and
Rally (SEER) and other projects are
becoming a vital resource in the
development of the Solar Age.

Our host, the **Exploratorium**, has taken
a very strong stance in support of Solar
and all are members of the Solart
Global Network! Be there!

Rethinking the Newsletter

"Rethink the Newsletter" Meeting

Tuesday, April 19, 7:30 pm

Theo Ferguson, host, 510-548-7480
1642 Milvia #4, Berkeley
(near Berkeley Shattuck Ave. BART)

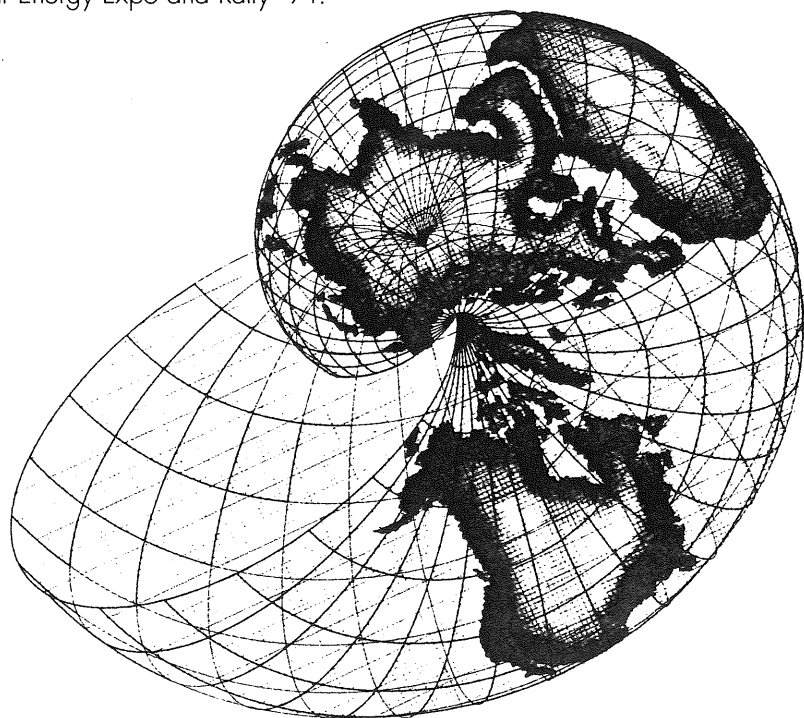
The result of heightened awareness of
the Newsletter has been an increase in
submissions, as you see in this issue.
Enjoy them!

Many responding to the questionnaire
hope for more art, (color?!), and reviews
of events and shows. Judging from
comments, the Calendar gets heavy use.
Leonardo Electronic Almanac has urged
us to have an *Ylem Gallery* online that is
different from the Newsletter.

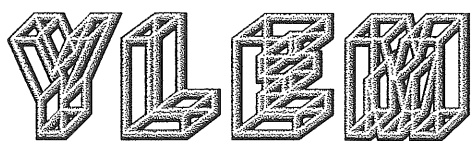
Most interesting were the issues
impacting Ylem artists, such as lack of
access to equipment, or resources to
buy it or afford email, lack of places to
show tech art and have it attract critical
attention. "How does a beginner
develop an art career today, how do
those more advanced find new
audiences in a changing world?" We
think these could be discussed
interactively in a regular column in the
Newsletter.

At our first "Newsletter Rethink" meeting,
Trudy proposed devoting volunteer effort
to raise money and pay for outside
help, but we decided that the
publication is more responsive to your
needs if it is produced by committed
members, if enough volunteers can be
found. Newer equipment would be
extremely useful, however, so we are
looking for someone willing to ask the
corporations.

The center for Newsletter operations
may shift closer to Oakland and
Berkeley. Three members there offered
to help. More are needed. With a core
group in place, we may proceed as a
multi-editor operation, with some editing
from a distance by email. By July, we
hope to have made a good transition.
Anyone on the ground, particularly in
San Francisco and the East Bay, or out
in the ether who would like to help are
urged to attend the next meeting or to
contact trudymyrrh@aol.com.



Spiral map projection by Agnes Denes



Events

April 9, 1:30 pm

Science and American Life

Lecture by Smita Dutta, National Museum of American History. Based on the exhibition, *Science and American Life*, opening in late April 1994 at the National Museum of American History. Lecture describes the intersections between science and American society from 1876 to current day. Tickets: \$6 at door. Tech Museum of Innovation, 145 West San Carlos, San Jose, CA

April 12-14

New Media Expo (Los Angeles)

Product displays and conferences on interactive advertising and other interactive information technologies. To be held at the LA Convention Center. The Interface Group, Conference and Exposition Producers, 300 First Avenue, Needham, MA 02194-2722

April 16, 2 PM

Rides: Douglas Trumbull to Speak (Astoria, NY)

Trumbull is the creator of the two newest, hottest, highest-tech "rides" in the theatre/ amusement park industry: Universal Studios' *Back to the Future: The Ride* and *Secrets of the Luxor Pyramid* at Luxor Casino in Las Vegas. At 5 pm there will be a screening of *Brainstorm*, starring Natalie Wood and Christopher Walken. Tickets: \$10, \$8 for SIGGRAPH members. Advance purchase strongly recommended. Mail check to: American Museum of the Moving Image, 35th Ave. at 36th St, Astoria, NY 11106; credit card orders: 718-784-4520. Call 718-784-4777 for directions to the museum.

April 19, 7:30 pm

Rethinking the Ylem Newsletter

Details about meeting on page 3.

April 24-28

CHI '94 (Boston, MA)

The Association for Computing Machinery 1994 Conference on Human Factors in Computing Systems. Association for Computing Machinery, ACM/SIGHI, CHI '94 Conference, P.O. Box 19634 Alexandria, VA 22320-9998

May 1, 2:00 pm - 8:00 p.m.

Dave Archer Studio Sale

Demo: painting with high voltage. Admission \$5 (goes to Children's Center)... under 12 free. 55A Hamilton Drive, Novato, CA 94949

All events and exhibits are in the San Francisco Bay Area except where otherwise noted.

May 4

Ylem Forum: Solart Festival—Suns Alive!

Details on page 3.

May 7, 9 AM-10 PM

"Ménage à Trois": mixing media (New York City)

NYC ACM/SIGGRAPH Spring Conference on the interplay of computers, video and music. To be held at Pace University Downtown Theatre, One Pace Plaza, New York City. For more info or to offer suggestions, call 212-362-5303

June 1

ISEA '94 Helsinki

See article, page 6. Pre-registering for ISEA'94 will ensure your participation in ISEA'94, because space is limited. Offer valid until June 1. Registration fee, US\$425, US\$140 student, covers 3-day conference program with papers, panels, round table discussions and poster sessions, participation in the Electronic Art in Universities meeting, admission to the ISEA Exhibitions, Electronic Theatre, concerts, Mediascape, Media Lounge and the Game Arcade. Extra charge for: accommodations, Ambient Night, workshops and courses, cruise to St. Petersburg. (Cruise \$115-230, in cabins of 2 or 4 people. More for singles). Make checks payable to the University of Art and Design Helsinki UIAH, to Postipankki Ltd., Account no. 800016-13990, reference 1991 / ISEA'94. Conference forms and info: Raija Berg, Conference & Cruise Registration, ISEA'94 Office, UIAH / Media Lab, Hameentie 135 C, FIN-00560 Helsinki, Finland; tel +358-0-7563601; fax +358-0-7563602; email isea@uiah.fi

June 18-19

Solart Symposium (Hagen, Germany)

Dr. Michael Fehr, Head of the Karl-Ernst-Osthaus-Museum in Hagen, Germany, and Jurgen Claus, collaborate on an interdisciplinary symposium to be held in the Evangelische Akademie Iserlohn. Artists, researchers, scientists and architects from the solar energy field will be invited. For more information please contact one of the organizers. Dr. Michael Fehr, Karl-Ernst-Osthaus-Museum, Hochstr. 73, D-58042 Hagen; +49-2331-207.31.31; fax: +49-2331-161.49

June 25-29

Art & Mathematics Conference (Albany, NY)

The third annual interdisciplinary conference relating art and mathematics. Members who have attended or lectured in previous years

give this event high marks. For info. contact Ylem member Nat Friedman, Dept. of Mathematics, SUNY, Albany, NY 12222; 518-442-4261; fax -4731; artmath@math.albany.edu

Exhibits

April 12 - June 11

Behold Emperor Jones

New video installation by Larry Andrews. Incorporates pirate radio, a sportscar wired for sound and multi-channel video in an investigation of power, leadership and resistance. Gallery hours: Tues-Sat, 12-6 PM. Reception for the artist: 4/9, 4-6 PM. Capp Street Project, 525 Second St., San Francisco, CA 94107; 415-495-7101; fax 415-495-7059

Through April 22

Landscapes in Nature of Cyberspace (Princeton, NJ)

A unique exhibition of landscape art in both traditional and electronic media:

George Cramer: sculptor and painter. On the computer he creates works reminiscent of futuristic landscapes, using forms and shapes to establish distances. His fascination with nature dates back to early experiences with his Posowatomic grandmother. He says, "She took me out when I was five and named the trees and bushes for me.

Peter Homitsky: His pastels and oil paintings exhibit a natural clear light giving evidence of his Impressionist heritage.

Shelley Thorstensen: a printmaker who uses a myriad of techniques. "Printmaking has a rich history as a medium of communication."

Wynne Ragland, Jr. (cover artist) whose work is described in detail on page 2. The Williams Gallery, 8 Chambers St, Princeton, NJ 08542; 609-921-1142, Ylem member Mary Lou Bock, Director

Through May 27, 9am-6pm

Pixels and Perspectives

An exhibit featuring four artists who use computer technology as their major tool. Ylem member Helen Golden, Michael Lamotte, Kent Manske and Corinne Okada. Artspace at The Digital Pond, 50 Minna Street, San Francisco, CA 94105; 415-495-7663; fax: 415-495-3109

Opportunities

Deadline April 1

ISEA '94

Fax or email proposals for poster sessions, project & institutional presentations ASAP. Submission forms are available at ISEA'94 Office. Note! ISEA'94 Media Lounge will accept your audiovisual material up to the last minute.

Send in your work or bring it with you! The works will be available for all visitors to view or listen in Helsinki. For details, contact: **ISEA'94 Office, UIAH / Media Lab, Hameentie 135 C, FIN-00560 Helsinki, Finland;** tel +358-0-7563601; fax +358-0-7563602; email isea@uiah.fi

Deadline April 1

New England Foundation For The Arts

Artist Project/New Forms grants, \$2,000-5,000 awards, for emerging artists (no students) living in CT, MA, ME, NH, RI, VT and exploring new definitions of cultures, disciplines or traditions. The program's emphasis is on experimentation and innovation. **New England Foundation for the Arts, 678 Massachusetts Ave., 8th fl., Cambridge, MA 02139;** 617-492-2914

Deadline April 1

Philafilm

Call for entries for Philadelphia International Film Festival. Categories include feature film, short film, documentary, animation, experimental, music video and student. 3/4" U-

matic NTSC video and 8mm, 16mm and 35mm film are the acceptable formats. **Philafilm, 121 North Broad Street, 6th Floor, Philadelphia, PA 19107, 215-977-2831**

Deadline April 10

ACM Multimedia 94

SIG-Multimedia (SIGMM) is an offshoot of SIGGRAPH, and will be holding its own conference this year in San Francisco, Oct. 15-20. Needs proposals for panels, courses, workshops, and papers. Respond ASAP, since they've extended the deadline for our members. (Watch for Art exhibition opportunity in a later issue!) **SIGMM, Merritt Blattner (General Co-Chair), 908 Florence Rd., Livermore, CA 94550; 510-422-3503; blattner@11.nl.gov**

Deadline April 15

Friends

Seeking designs for a sculpture made out of car parts, 10' high or 10' long. \$2,500 award to winning design. No fees. **Diana Hagen-Martinez, Administrator, P.O. Box 176, Alliance, NE 69301; 308-762-2841.**

Deadline April 20

SIGGRAPH Art and Design Show

Film and video entries due now. **Deanna Morse, SIGGRAPH '94 Art and Design Show Chair, Grand Valley State University School of Communication, Lake Superior Hall, 1 Campus Drive, Allendale, MI 49401-9403 USA; 1-616-895-3101; fax: -3106; artdesign.s94siggraph.org**

Deadline April 20

Site-specific works: SIGGRAPH 94

Proposals can include works shown outside of a gallery setting, or may be designed to respond to certain designated areas of the Orlando Convention Center. Info: **Deanna Morse, Art and Design Show, 268 Lake Superior Hall, Grand Valley State University, Allendale, MI 49401; 616-895-3101; morse@siggraph.org**

Deadline April 25-29

Video Expo/Image World Chicago

ExpoCenter Downtown, IL. Seminars, exhibit hall. Video production, computer graphics/animation, interactive multimedia, etc. **Knowledge Industry Publications, Inc., 701 Westchester Ave., White Plains, NY 10604; 914-328-9157; 800-800-5474.**

Deadline April 27

SIGGRAPH CD-ROM

A CD-ROM will document the SIGGRAPH convention for the first time. Submit works from any platform to be juried for inclusion. Non-traditional works particularly sought. Info: **Gary Lorig, SIGGRAPH 94 Electronic Media Chair, Barking Trout Productions, 1332 Malvern Ave., Pittsburgh, PA 15217; 412-681-4279; fax -6258; multimedia.s@siggraph.org**

Deadline May 1

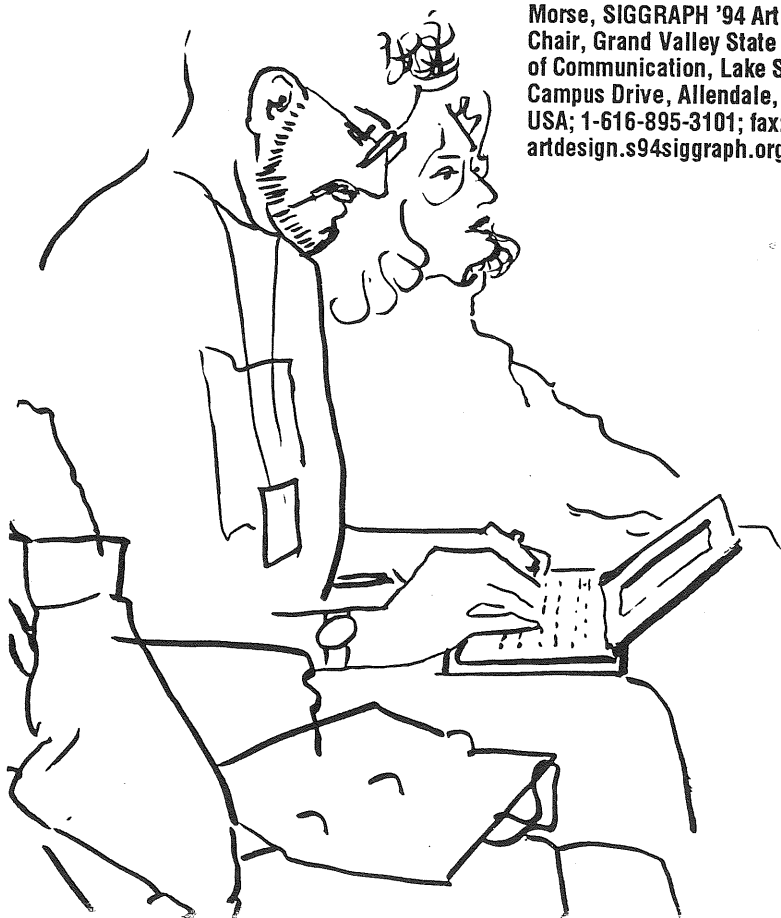
Family Album

Open to US artists. Photography and photo-based work completed in the last 3 years. \$10/entry. Juried from actual work, unframed/unmatted. "Alternative hanging methods accepted, i.e. mobiles, etc. Photos will be pinned to the wall for this exhibition. No size restrictions. Send a brief statement addressing the theme of family. No insurance. Works will travel, but will not be sold. Note: If you want your submissions to be returned, include a SASmailer with your submission. **Florida Center for Contemporary Art, 1513 E. 8th Ave., Tampa, FL 33605, 813-248-1171.**

Deadline May 20

Algorithmic Art Show

Xerox Palo Alto Research Center will be hosting a show of Algorithmic Art-art created by computation. There are two categories of submissions: Mail Art: Just send something small; Juried Art: Send slides or snapshots of your work. The show will run from June 15 until August 12. **Art Show, Xerox PARC, 3333 Coyote Hill Road, Palo Alto, CA 95304 Marshall Bern 415-812-4443; fax: Art Show 415-812-4471; bern@parc.xerox.com**



Drawing by Myrrh



ISEA 94, Helsinki

The Fifth International Symposium on Electronic Art (ISEA) will be held in Helsinki, August 20–5. Afterwards, people may either cruise to St. Petersburg or stay in Helsinki for the Night of the Arts Festival.

This exciting conference occupies a variety of imaginative venues in Helsinki. Most of the activity is clustered in the port area of Katajanokka, close to the Market Square and the Ouspenskij Cathedral. Besides the conference hotel Grand Marina, the Museum of Contemporary Art, Sibelius-Academy, University of Art and Design, venues include cargo containers and on board M/S Stubnitz, the “media space ship” visiting Helsinki.

August 20–21: Workshops and courses during the first two days University of Art and Design UIAH, Sibelius-Academy. Details and costs will be available June 1994.

August 21: The University of Art and Design will host an international meeting of electronic art universities from all over the world.

August 22–24: Main Symposium Program. The Papers and Panels Sessions will center on the ISEA'94 themes shown in boldface in article at right. The Poster Sessions provide room for a wide spectrum of art projects and short presentations.

August 21–28: International show of electronic art projects with works displaying a wide range of electronic technologies. M/S Stubnitz will present art projects from the Baltic Tour, and a show of Russian media artists will exhibit in the Customs Office and Warehouse.

August 22–24: Sibelius-Academy's state-of-the-art Chamber Music Hall will be the venue for several electronic and computer music concerts and sound installations.

August 22–24: Electronic Theatre screenings of innovative computer animation, video and film.

August 23 Ambient Night is a total immersion experience, a party with multi-sensory ambiances and performance.

August 20–25: The Media Lounge consists of audio listening, video viewing and multimedia presentation non-stop during the Symposium.

August 20–22: ISEA'94 trade show, the Game Arcade. Computer games, multimedia and interactive teaching applications.

August 22–25: Mediascape is a broadcast experiment, an interactive media theatre that defines new forms for the performing arts in the electronic landscape. The Mediascape also connects the different ISEA'94 venues via videoconference. It is a collaboration of the art academies and Magnusborg Studios.

August 25–28: After the symposium, an optional cruise is offered to St. Petersburg, with a free program of tourism and get-togethers with the local artists. Or, for those who wish to

stay in Helsinki, the Night of the Arts of Helsinki Festival, a cultural carnival for the masses, will provide a memorable experience. Registration fees prior to June 1 range from US\$140–\$425. Space is limited.

Cruise to St. Petersburg : US\$100–\$165, shared accommodations; more for single occupancy. Space is limited, so inquire before sending your check.

More details regarding registration for symposium and for St. Petersburg tour are under “Events” in the Calendar.

ISEA'94 is hosted by the University of Art & Design Helsinki (UIAH) and other arts institutions and government ministries.

ISEA'94 Officers: Minna Tarkka, Program Director; Susanna Koskinen, Program Coordinator; Kari Happonen, Producer; Olli-Pekka Kallio, Technical Coordinator; Raija Berg, Registration.

It is endorsed by ISEA (The Inter-Society for the Electronic Arts) and ISAST, Leonardo (The International Society for the Arts, Sciences & Technology).

ISEA Online

An online discussion forum for topics of ISEA'94, The 5th International Symposium on Electronic Art, began in January 1994. It is a lively forum for discussion prior to the artistic event in Helsinki in August. The online conference can be reached from throughout the world, wherever there is an access to Internet. It will contain all the information about ISEA'94, an ongoing discussion with a hypertext interface and possibility to view audio and image information.

The aim of *ISEA Online* is to go deep into the discussion already by the time of the conference. We are also trying to encourage different disciplines to attend, because the issues do not only concern those already working in electronic media, but are becoming more and more relevant to everyone. As electronic forms of information are defining our mental and physical environment, they have become the focus of our culture. In course of the discussion various points of view can be brought up, fought out and developed further.

This collision of different points of view is the actual subject of ISEA'94.

The topics of ISEA'94: **Spacescapes** The electronic arts create new sets of spatial concepts and experiences. ISEA'94 assesses the aesthetic and social implications of this paradigm shift. The topics addressed may include: *Merge - Immerse*: the merging of human body and electronic space and of inner and outer space. *Programmed Spaces*: the

natural, cultural and social environments of the electronic era. Post-biological existence in the age of HIV. The pleasure of living in the reconstructed nature: The role of design, architecture and ecology in defining the environment. Spatial Aesthetics: topographies of art and experience.

High and Low ISEA'94 aims at a critical investigation of ‘high’ and ‘low’, a pair of opposing terms used to designate both technology and culture. **Spectacular Technologies**: historical perspectives on spectacle apparatus The cultural history of the individual's response to media: high tech meets low human? The artist and the technomarket: avant-garde or advertising? Military technology or ecology as the forerunner of technology? Gender in extinction. **ISEA'94 Game Arcade**: Live to score! **East Meets West, The Next Generation**: ISEA'94 looks to the future of electronic media and its young users by focussing on questions of psychology, learning and ethics. **Interactivity or Interpassivity?** **Logic and creativity**: The role of the computer in the duality Beam up to a world without teachers: Is a new psychology needed for electronic kids? **Edutainment**: Do computer games really advance learning? **Virtual Literacy**: narrative structures and patterns of reading brought about by multimedia and computers.

ISEA Online shall be started by short commentaries on the topics. It shall be followed by a free discussion and an edited forum for articles. *ISEA Online* is based on the World Wide Web (www) hypermedia service which can be viewed with a program called Mosaic. It is available for Unix, Windows and Mac at ftp.ncsa.uiuc.edu. You can use programs like FTP (or Fetch for Macintosh) to retrieve the files from NCSA.

In case Mosaic does not run on your computer you can use Lynx, available at for example ftp.nic.funet.fi. - use even linemode www. Source and binaries for all of them should be available among other places in ftp.funet.fi directory /pub/networking/services/www. - telnet to info.funet.fi and login as info. Then select www and lynx and run it from there - One interface that at least should work on any kind of terminal is linemode www which can be tried with telnet info.cern.ch.

If none of these suits you, you can mail to isea-forum-request@uiah.fi for information about ISEA. That way you will receive the updates regularly, and your name and address will be added to the isea-forum discussion list. A mailserver may also come online later in case there's need for email access to ISEA archives. If you haven't contacted ISEA'94 before and would like to be updated, please request for information at isea@uiah.fi. The URL for *ISEA Online* is <http://www.uiah.fi/isea/>.

Deadline June 30

New Voices, New Visions

Deadline extended! A competition for "art that could only have been realized on a computer." \$5,000 in prizes. For info. contact Fine Art Online, attn. Trevor Kaufman, voyager@phantom.com

Chaos and Graphics: call for papers

Wanted: interesting, well-written articles for the "Chaos and Graphics Section" of the international journal. *Computers and Graphics* (Pergamon Press). Contact: Cliff Pickover, IBM Watson Research Center, Yorktown Heights, New York 10598; cliff@watson.ibm.com

Design and Technology Book Series

Input sought from design & technology designers, photographers, educators, artists, technologists and intellectuals. To participate, contact: Isaac Victor Kerlow, 119 West 23rd St, New York, NY 10011; 212-675-8161 or 718-636-3693

Deadline Unclear

Global Identities, Global Technologies (Atlanta, GA)

Public Domain is planning a project during the Olympics in Atlanta (1996). Theme: Identity: Formation/Dissolution (individual, group, national, and international identity transformed by technological infrastructure). Public Domain, PO Box 8899, Atlanta, Georgia 30306-0899; 404-621-5838; info@pd.org

International Multimedia Directory

To be included in the *International Directory of Interactive Multimedia Producers*, as a producer, programmer or designer, request a form from: Multimedia Computing Corp, 2900 Gordon Avenue, Suite 100, Santa Clara, CA 95051

Kinetic Communication Designer

The Design Department at Carnegie Mellon is searching for an individual with expertise in kinetic communication (video, film, or computer-based) to join Communication Design Program. Will begin reviewing applications on March 31. Contact: dan+@andrew.cmu.edu (Dan Boyarski, Head of Communication Design)

Leonardo Call for Papers: Pioneers

The journal *Leonardo* is soliciting articles in the following categories:

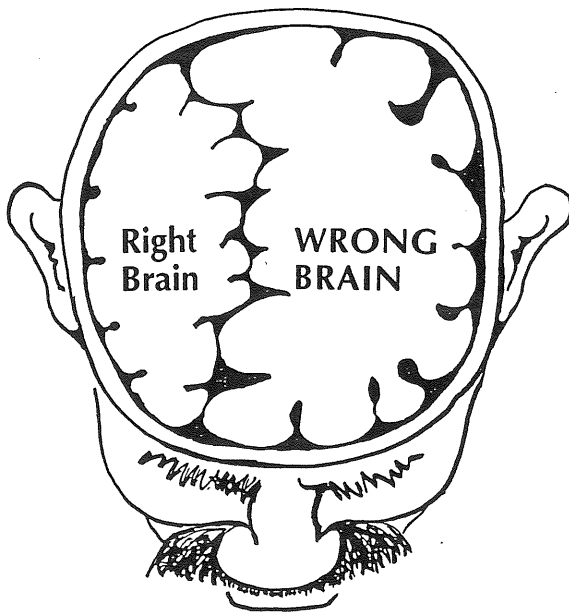
- Memoirs by artists who have pioneered uses of new media in the arts before 1970.
- Curators of exhibits and group shows of art involving the use of new technologies and media, or art involved with contemporary science, send info. for the new Leonardo Gallery Section. Preference will be given to

exhibits shown outside of North America.

c) Artists involved in biotechnology, direct interfaces to the human nervous system, exploring issues in contemporary biology.
d) *Leonardo* is starting a new section "Endnote" for short essays and opinion pieces of current interest. Manuscript proposal must be sent electronically and must not exceed 250 words. Send for contributor's guidelines to: Roger Malina, Leonardo/ISAST, isast@garnet.berkeley.edu

Mac Graphics Tech Position (Los Angeles)

Computer Graphics / System Support Specialist, College of Communication and Fine Arts, Loyola Marymount University. Apply ASAP to: Computer Graphics/System Support Specialist POSITION DEAN, College of Communication and Fine Arts, Loyola Marymount University, 7101 W. 80th St., Los Angeles, CA 90045



T-shirt design by Myrrh

Technology and Nature

Apparently open to all. Seeking artists to display at Lake Point Towers. Paintings, drawings, photo, video, computer. Send proposal, up to 15 slides, \$10, and SASE (or SASE for info) to: Altered Studio, c/o Chris Rose, 312 N. May, #2-L., Chicago, IL 60607; 312-226-8346.

Deadline Soon

The Computer in the Studio

An exhibition of a new generation of computer-assisted art, on the issue of increasing artist access to computer technology, and the implications for contemporary art. Eligible: artists from New England, or with strong ties

to the region. Works using computer with other media: painting, collage, drawing, sculpture, photography, installations, performance art, animation, interactivity and virtual reality. Stress the social and cultural implications of the machine. Send slides or standard computer storage media, resume, and an artist's statement: **The Computer in the Studio**, DeCordova Museum and Sculpture Park, 51 Sandy Pond Road, Lincoln, MA 01773

Needs/Offerings

April 30

Chaos in Wonderland

The new book *Chaos and Wonderland: Visual Adventures in a Fractal World* by Ylem member Clifford Pickover. \$24 for orders received before the end of April. \$30 thereafter.

Hardcover, 300 pages, color, 200 illus. No postage and handling charge in the US. (Add \$3 if outside the US.) Offer valid only if checks are sent directly to St. Martin's Press, Attn: Garrett Kiely, 257 Park Ave South, 18th Floor, New York, NY 10010

Artists Equity T-shirts

Cartoon for the shirt (shown below) is by Ylem founder Trudy Myrrh Reagan. Available in medium or extra-large. \$17.50 per shirt (includes shipping). Beefy 100% cotton with black design. Make check payable to Artists Equity and allow 6-8 weeks for delivery. Artists Equity, PO Box 460931, San Francisco, CA 94161

Marin Co. Lodgings Needed in July

Jürgen Claus, editor of *SolArt Global News*, and his wife plan to be in California for the month of July, and would appreciate a below-market house or apartment to rent. Please contact: Jürgen Claus, Academy of Media Art, Peter-Welter-Platz 2, 50676 Köln, Germany; tel. (+49) 221-201-89-0; fax -124

Some calendar items reprinted from Art Calendar (the monthly marketing and career management journal for artists, PO Box 199, Upper Fairmount, MD 21867. Subscriptions \$32/yr.), Wired, Video Networks (from BAVC), VO (NYC Chapter, SIGGRAPH), ISEA Newsletter, Leonardo Electronic Almanac and FineArts Forum e-mail.

AAAS National Meeting

by Robert Ishi

The Annual Meeting of the AAAS (American Association for the Advancement of Science) was held in San Francisco in February. Of the more than 170 sessions presented, a few were of special interest to Ylem members:

The session "Art and Mathematics" focused on how art has been influenced by mathematics.

The development of formal perspective led to a revolution in the art of the Renaissance. The introduction of non-Euclidean geometries and 4-dimensional space in the early 20th century had a profound effect on the art of Dali, Duchamp, Picasso and others. Ylem sculptor Rhonda Roland Shearer puts forward the thesis in her new book that the advent of fractal geometry is leading to another major innovation in art. At the session, much of the work was based on fractals.

Ylem member Nathaniel Friedman (SUNY-Albany) showed examples of his fractal-inspired stone sculptures and prints. He is interested in the fractal edges of broken pieces of polished granite. He inks the surfaces of the broken stones to make prints. He also creates stone sculptures with random, fractal breaks.

Another Ylem artist, Stewart Dickson, demonstrated his use of the computer math program, *Mathematica*, to create real three-dimensional models of complex topological forms. His computer data can then be transferred directly to advanced model-making systems which use lasers or UV-light to solidify forms within plastic-based liquids and powders. In this way, solid mathematical models can be produced. Dickson says he "reaches into cyberspace to pluck objects out into the real world."

Charles O. Perry, creator of large geometric sculpture in the atrium of the San Francisco Hyatt Regency, has long used mathematical forms to create striking and beautiful sculptures for public places. He showed slides of

several of his mathematically-based sculptures. (complex polyhedra, Moebius twists, etc.), and their process of development and construction. He noted that recently funding for public art has been substantially cut-back.

Another session titled "Is Visualization Really Necessary for Science, Engineering, and Medicine?" concluded: Yes! The computer's ability to convert vast arrays of numerical data into more easily comprehensible images, using color, higher dimensions, simulated shading, lighting, texture, and



Chaotic Space 2, computer art by Ilene Astrahan

stereo, offers new ways to see the unseen. Real time non-invasive imaging of the human body makes diagnosis and treatment of medical problems more effective. Robert Abarbanel explained how Boeing, in a revolutionary and recent change of approach, now designs its planes in detail on the computer. This dramatically reduces the time needed to develop a new aircraft which has several million parts. The ability to update design data daily over an international network gives the thousands of engineers and suppliers working on a project unprecedented access and involvement, creating a more cohesive and efficient work environment. The consensus of this session was that Visualization is a rapidly growing field in itself.

A controversial AAAS session on "Science and the Sense of the Sacred" brought up some fascinating ideas bordering on the mystical, but that's

Virtually Real

by Ilene Astrahan

A good sampling of state-of-the-art systems were displayed at the NY Virtual Reality Expo, sponsored by the NY Hilton from Nov 29-Dec. 2. After shooting at and dodging various 3-D objects, zooming through tunnels and flying over several landscapes, I can at least state that VR technology has considerably improved over the past two years.

The systems ranged from 3-D glasses of various types, mostly to be used with special software and monitors, to

arcade games and full helmet and harness rigs. The hit of the show was the hang glider simulator by Evans and Sutherland. The full body harness along with the excellent graphics of a futuristic city did give something of the feeling of hang gliding. One would need more than the two minutes allotted

to learn the steering. A tolerance for patient waiting in line is helpful at VR exhibits. Navigating and figuring out right and left motion in virtual space can be disorienting at first. The helmets, while still uncomfortable, do have better resolution and faster screen refresh. But I still felt a bit dizzy.

Some almost affordable consumer level products are beginning to appear. But I wish they would rename the category something more accurate such as "Electronic Illusion" or "Electronic Environments." Can tracking stock market data in a 3-D gamelike setting really help the economy? As a major use seems to be 3-D walkthroughs of real estate, maybe it should be called "Virtual Realty"?

another story. It seems that many scientists are finally publicly acknowledging the other side of their brains.

Copier Art Documentation

by Reed Altemus

I have been working during the past year in art documentation on electrographic art creating both a descriptive international bibliography and a database of copy-art exhibitions. I have been collaborating with people and organizations in eight countries.

Bibliomania, that is what it is called! My bibliography has grown to nearly 250 citations, some briefly annotated, and it covers completely the information available on copier art in the major art indexes, bibliographies and databases available in the U.S. In addition, it contains a quantity of important information and material I have gathered from people abroad. I have made a database of exhibitions and an archive inventory. I am fairly certain that I am one of a very few people doing documentation work on this subject in the United States.

For those interested in the underground mail art magazine explosion of the 1980s, I have supplied Stephen Perkins of University of Iowa with a concise bibliography for a forthcoming article entitled "Copy Culture." That work will be published as a special guest-edited issue of *New Observations* magazine, New York, in 1994.

This whole project started in 1992 as an offshoot of my graduate work in information studies. It is concerned mainly with art based on reprographic technologies where the scanner and print engine are housed in the same unit, as distinguished from other forms of electrographics, for instance computer printers and plotters or telephonic imaging (fax art or artefax).

I was interested at the time in the computerization of art information and developing the idea of subject-specific databases in art documentation, something I have also pursued in my work for the networked electronic journal *FineArt Forum*. My work documents for the future the current state of artists' technological tools.

You may contribute materials for a permanent archive collection, as well as

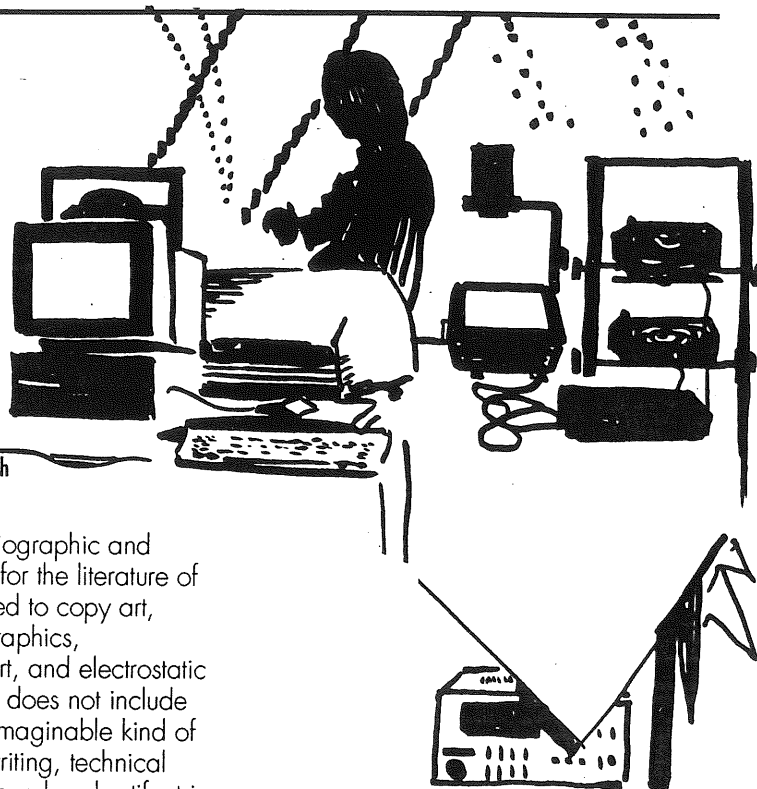
Drawing by Myrrh

information for a bibliographic and exhibitions database for the literature of and information related to copy art, electrography, xerographics, copigraphy, copier art, and electrostatic art. Note: this project does not include telecopier art. Every imaginable kind of information, critical writing, technical and historical background and artifact is needed. Some compensation for shipping, materials, or personal time is available and negotiable.

The database, now in Mac format, will be available in Mac, MS DOS and ASCII formats as well as as a printed document. The files, 100K and 50K in size, generate about 30 pages hardcopy. Drafts and updates of the bibliography are also available. The bibliography, exhibitions database, a contact list (125 entries with addresses) and archive inventory are available for US\$12.

The goals are first, an information utility and archive devoted to copy art with open access to interested individuals and organizations at cost, and second, the continuation of my research. My work is presently unsupported, but I am investigating opportunities for support from a funding institution. A prospectus for the project is available in English, French, German and Hungarian.

Please write or contact me at: Copy-Art Bibliography & Archive/ Reed Altemus, 16 Blanchard Rd. Cumberland Ctr., Maine 04021-9738; 207-829-6306; raltemus@well.sf.ca.us



StreetArt

By Susan Plough

StreetArt was a name I used for posters I put up on the street. I made the posters on computer by digitizing images, then I mass produced them and put them up in the subway, on bulletin boards and everywhere I went. Sometimes one *StreetArt* would be made up of several different printouts.

I kept a journal recording people's reactions to them, because they were very diverse. Police told me to quit doing it in a local mall, and a man also called the police when I was posting a series of them in a Philadelphia park, and I had to take them down. One person got mad and said I was "littering." Another person told me he loved them, and he had two of them in his basement hanging up. Another stopped his car on the street when I was putting them up on a blank wall and said, "good work." Afterwards, he became my boyfriend.

I haven't been making any for awhile since something is wrong with the SCSI port on my Mac, but I hope to start again after that's fixed.

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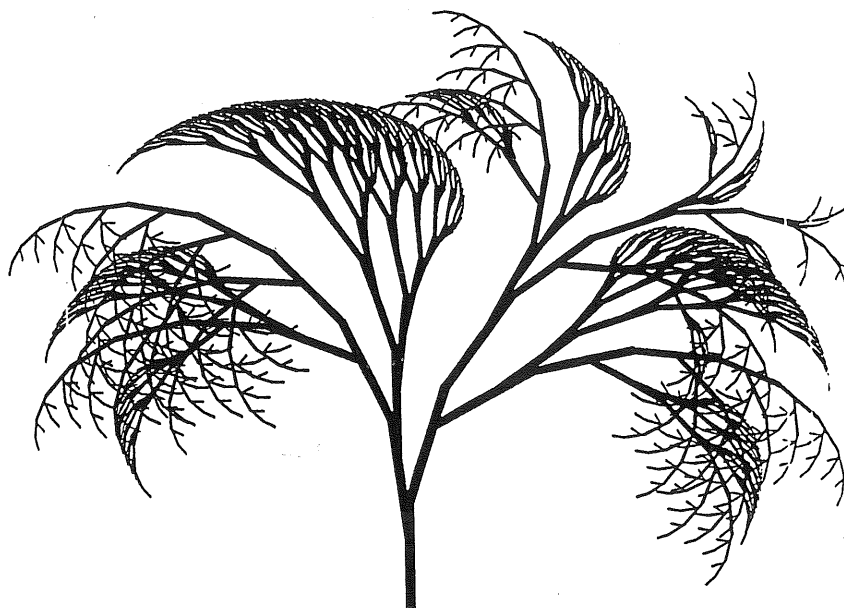
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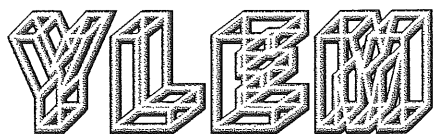
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**April
Newsletter**

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